

## Abstract

A cooling system for providing cooling air for a motor having a shaft extending through an opening within the motor, the motor being contained within a vacuum cleaner housing having a top and a bottom, the cooling system including a cooling-air inlet located in a side of the vacuum cleaner housing, a motor housing integral with the vacuum cleaner housing, the motor housing having a top portion defining a hole passing therethrough, the hole having a first dimension and being in flow communication with the cooling-air inlet, a side wall surrounding the hole and extending from the top portion of the motor housing, thereby enabling the cooling air to flow from the motor housing through an interior of the side wall, a baffle circumscribing the motor, the baffle having a second dimension that is greater than the first dimension enabling cooling air to pass through the opening in the motor adjacent the shaft with at least a portion of the motor positioned within the side wall and a cooling-air exhaust outlet located in the side of the vacuum cleaner housing in flow communication with the motor housing and spaced apart from and in flow communication with the cooling-air inlet.